CHEMICAL LEAMAN TANK LINES, INC.

NEW JERSEY

EPA ID# NJD047321443

EPA REGION 2

CONGRESSIONAL DIST. 01

Gloucester County

Logan Township

Site Description

Chemical Leaman Tank Lines, Inc. (CLTL) has operated a tank-washing facility since 1961 on a 34-acre site zoned for light industry in Logan Township, New Jersey. Logan Township has a population of approximately 3,000 residents and approximately 50 homes are within a ½-mile radius of the site. Prior to 1975, the wastewater generated from the tank-washing was placed in a series of seven unlined lagoons and ultimately was discharged to Cedar Swamp and Moss Branch Creek which border the site. Following the closure of these lagoons in 1975, sludge in the settling lagoons was excavated and disposed of off-site. These lagoons were then backfilled with clean sand. The aeration lagoons were backfilled with sand and construction debris, but no sludge was removed. In 1980 and 1981, the New Jersey Department of Environmental Protection found carbon tetrachloride and other organic compounds in the groundwater on the site as well as in neighboring private wells. In 1987, residences north of the site along Route 44 were connected to the Bridgeport Municipal Water System. In 1993 and 1995, residences south and west of the site were connected to the municipal water supply.

Site Responsibility: This site is being addressed through Federal and Potentially Responsible Party (PRP) actions.

NPL LISTING HISTORY

Proposed Date: 09/01/83

Final Date: 09/01/84

Threats and Contaminants

The groundwater on site is contaminated with volatile organic compounds (VOCs) including trichloroethene, benzene, and vinyl chloride, and heavy metals including arsenic, chromium, and zinc. Many of the same contaminants were found in private wells in the vicinity of the CLTL facility. Contaminants found in subsurface soils include heavy metals, VOCs, and phthalates (semi-volatile organic compounds). Residents who use water from VOC-contaminated wells for drinking, bathing, or clothes washing may ingest, inhale, or dermally absorb contaminants. Area homes have been connected to the municipal water supplies. Workers could be exposed to VOCs by direct contact with or by inhaling contaminants. Cedar Swamp, located adjacent to the facility, has been impacted by the direct discharge of contaminants, contaminant laden surface water runoff, and migrating contaminants in the groundwater. These contaminants pose an ecological risk to the Cedar Swamp ecosystem.

Cleanup Approach

The site is being addressed in four stages: immediate action, and three long-term remedial phases focusing on cleanup of the groundwater (Operable Unit One), soil (Operable Unit Two), and wetlands (Operable Unit Three) contamination.

Response Action Status

Immediate Actions: Activated carbon treatment units were placed in four homes with contaminated drinking water. The four homes were later connected to a permanent water line from a nearby town in 1987. Three more homes with threatened water supplies south and west of the site were connected to the municipal water line in March 1993 and August 1995.

Groundwater Contamination: In 1990 EPA completed a Remedial Investigation (RI) of the groundwater. The remedy selected in the 1990 Record of Decision (ROD) included groundwater extraction, treatment through chemical precipitation, air stripping and granulated activated carbon, and discharge of the treated groundwater into the Delaware River. The Remedial Design (RD) of the selected remedy began in 1991 and was completed in September of 1997. In early 2000, CLTL, the Responsible Party (RP), approached the EPA with a request to develop an alternate remedial design comprised of both conventional pump-and-treat and innovative in-situ technologies. The RP provided documented evidence at other sites with similar hydrogeology and contaminant characteristics that the combined use of conventional pump-and-treat and in-situ technologies (chemical oxidation and enhanced bioremediation using Hydrogen Release Compound) were potentially suited to achieve the ultimate goal of restoring the aquifer to drinking water quality. The PRP's proposal to modify the design was approved by the EPA and an addendum to the design was developed and completed by the PRP in January 2004.

Soil Contamination: EPA performed an investigation of the soil contamination and prepared a risk assessment report in 1991which concluded that ingestion of surface soils present in a limited area of the site may pose human health risks exceeding the EPA target

risk range. However, due to changes in risk assessment guidance, toxicity factors and exposure factors, a work plan for completion of an updated Human Health Risk Assessment Report was approved in January 2002. Additional data were collected in February 2002 and the final risk assessment report was submitted to EPA in December 2002. The risk assessment report concluded that based on the new proposed toxicity values for TCE, there is a hot spot area that would pose a human health risk if left untreated. Additional soil and groundwater data further indicated potential impacts to underlying groundwater at the site. Currently, additional sampling is proposed to fully delineate the extent of the soil contamination in this hot spot area and to follow through with appropriate remedial action.

Wetlands: An investigation into the nature and extent of contamination in the wetlands was completed in July 1993. The remedy selected in the October 1993 ROD includes excavation of 7.3 acres of contaminated sediments and soils in the wetlands. This excavated material will be treated or disposed of at an appropriate off-site facility. Following the excavation, the wetlands will be restored to their original functional value. The remedy also includes the construction of a berm around the active CLTL facility to protect the remediated wetlands. The remedial design for the restoration of the affected wetlands was completed in February 2004 and remedial construction is scheduled to start in May 2004.

Site Facts: CLTL, the PRP, entered into an Administrative Consent Order (ACO) with EPA in July 1985 to perform the site investigation and the alternative cleanup activities. In June 1989, EPA took over the performance of the investigation and completed the groundwater RI in 1990. CLTL entered into an ACO to construct a waterline extension to the homes in the vicinity of the site not receiving municipal water. CLTL entered into a Consent Decree (CD) in September 1991 to perform the Remedial Design/Remedial Action of the groundwater remediation system. In September 1998, EPA issued an Administrative Order to CLTL for the performance of the remedial design and implementation of the wetlands remediation.

Cleanup Progress

In 1987, the affected homes to the north of the CLTL site were connected to an alternate water supply. Homes located to the south and west of the site were connected to an alternate water supply in March 1993 and August 1995. Remedial construction activities for the construction of the groundwater pump and treat system in combination with the in-situ technologies, chemical oxidation and enhanced bioremediation using Hydrogen Release Compound (HRC) are expected to begin in 2004. A risk assessment for the contaminated soils has been completed and final soil delineation will take place in 2004 to select the appropriate remedy for this operable unit. The remedial design to restore the functional value of the wetlands was completed in February 2004 and remedial construction is scheduled to begin in May 2004.

Site Repository

Township Clerk's Office, Logan Township Municipal Building, 3 Main Street, Bridgeport, NJ 08014